UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *82-100* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *82-91 and 93-100* is/are rejected.

7)☒ Claim(s) *92* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment was received on 7/17/08, and has been entered and made of record. Currently, **claims 82-100** are pending.

Response to Arguments

2.   Applicant's arguments with respect to **claims 82-100** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3.   Claims are objected to because of the following informalities:

Claim 82, line 16, "respond to a call by a printer component made by the printer component" appears to be redundant.   A revision of the claim wording is requested.

With respect to claims 83 and 100, arguments analogous to those presented for claim 82, are applicable.

Claim 84, line 2, "for printer components" should be "for the printer components";

Claim 86, line 3, "by a printer component" should be "by the printer component";

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 84, 85 and 94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 84 recites the limitation "a job" in line 2. It is unclear if this job is referring to the print job recited in claim 1.

Claim 84 recites the limitation "status of the job" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the job is referring to the job recited in claim 84, line 2 or the print job recited in claim 83. Clarification/explanation from the Specification is respectfully requested.

Claim 85 recites the limitation "a printer component" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if this printer component is referring to the printer component which made a call in claim 83 or another printer component.

Claim 94 recites the limitation of the interpreter entering a waiting for data state when job processing by the interpreter has started. If the job processing has been already started, it is unclear how the interpreter goes into the waiting state. Isn't the interpreter already in the processing state, not the waiting state? Clarification/explanation is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 82-88 and 100 are rejected under 35 U.S.C. 102(e) as being anticipated

by Gase U.S. Patent No. 6,184,996.

With respect to claim 83, Gase discloses an apparatus for providing printer

recognition and management of a print job entity, comprising:

a repository of attributes and status information associated with each print job

that passes through a printer system, the repository being disposed within a printer (job

queue 28 holding the job related information in col. 3, lines 51-67);

a job monitor (queue management 32 in fig. 1), disposed within the printer, for

managing the repository of attributes and status information associated with each print

job (col. 3, lines 31-33); and

an interface, coupled within the printer to the job monitor, the interface enabling

communication between the job monitor and a plurality of printer components of the

printer (a plurality of units 24, 26, 30 in printer 14), the interface allowing the printer

components to access the job monitor to request access to the attributes and status

information in the repository managed by the job monitor (accessing the job queue by

the server 24 & browser 26 to enable the printer 14 to respond to the client request in

col. 3, lines 12-23 & lines 52-67);

wherein the job monitor further enables the job monitor to respond to a call by a

printer component made by the printer component through the interface and for

managing interactions between printer components accessing the job monitor through

the interface in order for the job monitor to control the processing of the print job (when

the client requests job status/information to the printer, a call is inherently made from

the server 24 or browser 26 to the job queue in order to retrieve the requested

information in col. 3, lines 12-23 & col. 4, lines 1-8).

With respect to claim 84, Gase discloses the apparatus of claim 83, wherein

the interface provides an ability for the printer components to process a job according to

requirements of the printer components and reports job attributes and processing status

of the job for common access by other printer components (col. 3, lines 41-50).

With respect to claim 85, Gase discloses the apparatus of claim 83, wherein

the interface provides a printer component access to common variables, the printer

components presenting the job attributes or status information to the interface (col. 3,

lines 31-36 & lines 51-67).

With respect to claim 86, Gase discloses the apparatus of claim 83, wherein

the repository and the interface are provided by the job monitor, the job monitor further

providing logical views to obtain a next job to be processed by the printer component

and to obtain a list of all jobs in the order that they are processed (fig. 3 & col. 3, lines

59-67).

With respect to claim 87, Gase discloses the apparatus of claim 83, wherein

the job monitor is used to update attributes of print jobs (fig. 3 & col. 3, lines 59-67).

With respect to claim 88, Gase discloses the apparatus of claim 88, wherein

the job monitor determines a next job to process, the printer component determining

valid stats for the call (fig. 3 & col. 3, lines 51-67).

With respect to claims 82 and 100, arguments analogous to those presented

for claim 83, are applicable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claim 89-91 and 93-99 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gase as applied to claim 83 above, and further in view of Richter et

al. U.S. Patent No. 6,678,068 (hereinafter Richter).

With respect to claim 89, Gase discloses the apparatus of claim 87, but it does

not explicitly disclose the job monitor including a multiplexer.

Richter, the same field of endeavor of the print job queue managing art, discloses

an apparatus having a job monitor, wherein the job monitor includes a multiplexor, and

wherein the valid states for a multiplexer further comprise:

an unknown state for when a job identification is requested (col. 11, lines 11-22);

and

a pull print queue state for the job when the job is stop-flowed at a port

connection manager waiting for access to the printer because a print engine is

processing another job (col. 11, lines 46-58);

wherein the mulitplexer receives the job and selects to place the job in a job must

be spooled state, a may spool state or must print state (col. 11, lines 46-58).

Since the print server of Richter allows the interleaving of two or more signals to

a single terminal, the print server is construed to be a multiplexor.

At the time of the invention, it would have been obvious to one of ordinary skill in

the art to modify the apparatus of Gase to include the job monitor of Richter.

The suggestion/motivation for doing so would have been to provide a faster job

queue system by providing a plurality of different states by the multiplexer.

Therefore, it would have been obvious to combine Gase with Richter to obtain

the invention as specified in claim 89.

With respect to claim 90, Richter discloses the apparatus of claim 29, wherein

the multiplexer routes the incoming job to the print engine or the spooler according to

which becomes available first when the job is a job that may spool (col. 11, lines 46-57).

With respect to claim 91, Richter discloses the apparatus of claim 22, further

comprising a spooler (fig. 6).

With respect to claim 93, Richter discloses the apparatus of claim 22, further

comprising an interpreter (fig. 6 & col. 7, line 58 ~ col. 8, line 4).

With respect to claim 94, Richter discloses the apparatus of claim 32, wherein

the interpreter enters a waiting for data state when job processing by the interpreter has

started, enters an interpreting state when the job is being processed by the interpreter

and enters a done state when the job is finished being processed by the interpreter (col.

11, lines 33-58).

With respect to claim 95, Richter discloses the apparatus of claim 22, wherein

the repository and interface are provided by the job monitor, the job monitor further

handling incoming jobs with a port connection manager, wherein the port connection

manager calls to a multiplexer to process the job (col. 11, lines 33-58). Since the print

server of Richter allows the interleaving of two or more signals to a single terminal, the

print server is construed to be a multiplexor.

With respect to claim 96, Richter discloses the apparatus of claim 22, wherein

the repository and interface are provided by the job monitor, the job monitor further

deciding whether to assign a job to the printer, whether to assign a job to a spooler,

whether the job must wait for available resources or whether the job cannot be

processed (col. 11, lines 46-58 & fig. 16).

With respect to claim 97, Richter discloses the apparatus of claim 22, further

comprising the job monitor to fetch jobs in an order that is dependent upon the calling

component (col. 11, lines 33-58).

With respect to claim 98, Richter discloses the apparatus of claim 36, further

comprising the job monitor for examining process job states and variables to determine

the correct response and to return an appropriate job identification for a job (col. 11,

lines 33-58 & fig. 28).

With respect to claim 99, Richter discloses the apparatus of claim 22, further

comprising the job monitor for providing a common method of accessing the variables

associated with a job for the components (figs. 28).

Allowable Subject Matter

7.   **Claim 92** is objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CHAN S. PARK whose telephone number is (571)272-

7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625
/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

November 10, 2008